

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

ORDER NO. R9-2008-0089

**MASTER RECLAMATION PERMIT
FOR
SOUTHERN REGION TERTIARY TREATMENT PLANT
UNITED STATES MARINE CORPS, CAMP PENDLETON
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. The United States Marine Corps (USMC), Camp Pendleton (Base) filed a Report of Waste Discharge (ROWD) dated February 14, 2008, including the *Engineering Report for the Production, Distribution and Use of Recycled/Reused Water*, as required by California Water Code section 13260(a) for persons discharging waste or proposing to discharge waste that could affect the quality of waters of the state. The ROWD also fulfills Water Code section 13522.5(a), which requires a report from any person recycling or proposing to recycle water, or using or proposing to use recycled water.
2. The USMC submitted the appropriate filing fee also required by section 13260(a). For the purposes of determining the appropriate filing fee, the discharge regulated by this Order is considered to have a threat to water quality rating of 3, and a complexity rating of B, as defined in California Code of Regulations (CCR), Title 23, section 2200. The threat to water quality is based on potential for minor impairment of designated beneficial uses and complexity is based on a discharge of nontoxic waste that has physical, chemical, or biological treatment systems.
3. The ROWD describes the necessary measures for the design and operation of a treatment and disposal system for municipal wastewater, which consists primarily of domestic sewage and minor quantities of industrial wastes. Municipal wastewater contains elevated concentrations of dissolved solids, suspended solids, biochemical oxygen demand, carbon, nitrogen, phosphorous, chlorides, alkalinity and grease that must be adequately treated before discharging to the environment.
4. The Southern Region Tertiary Treatment Plant (SRTTP) is designed to receive and treat wastewater flows currently being processed at the Base's sewage treatment plants Nos. 1, 2, 3, and 13 upon completion of necessary pumps and piping. The SRTTP treatment process includes an oil/water separator, mechanical and manual bar screens, grit collectors, sequencing batch reactors, cloth disk filters, disinfectant contact basins, aerobic digestion, dewatering press, drying beds, and air biofilter. Solid waste consisting of screenings and dried sludge is hauled to a U.S. Environmental Protection Agency (USEPA) approved, and permitted landfill appropriate for the waste characterization of the solids. The design capacity of the SRTTP is 5 million gallons per day (mgd) and the USMC reports the current operating flow is 2.7 mgd, with plans to increase to the maximum permitted flow of 3.75 mgd.

5. Ground-water supply wells for the Base are located in the Las Pulgas and Santa Margarita River¹ Basins. With the exception of San Mateo Point housing, the USMC provides all drinking water from underground aquifers or basins. The USMC monitors for background levels of regulated and unregulated contaminants in drinking water pursuant to California Department of Public Health requirements CCR Title 22, Division 4, Chapter 15, section 64416. The total dissolved solids (TDS) concentration in ground-water supply wells is approximately 755 milligrams per liter (mg/L), which is greater than the water quality objective (see Finding 12). The USMC has approved a military construction project that will treat the drinking water supply using reverse osmosis that will reduce the (TDS) in the SRTTP influent. The USMC expects a correlated reduction of TDS in the effluent. The project is scheduled for fiscal year 2009 (beginning October 1, 2008), and construction contracts are already in place. The discharge of recycled water with TDS concentrations above Basin Plan objectives will be temporary and localized.
6. The tertiary treated recycled water will be reused only for spray irrigation initially on 374 acres in the following areas on Base:

TABLE 1

Irrigation Site	Area (acre)	Latitude (approximate)	Longitude (approximate)	Delivery Rate Design (acre-feet/yr)
Front Gate/ Recreation Fields	34	33° 13' 36" N	117° 23' 27" W	124
Marine Memorial Golf Course	180	33° 15' 53" N	117° 22' 26" W	963
Horse Pasture	142	33° 17' 15" N	117° 18' 24" W	517
Mainside Parade Grounds	18	33° 18' 18" N	117° 18' 36" W	66

7. The USMC will recycle as much disinfected tertiary treated wastewater in the southern part of the Base as practically feasible. The USMC anticipates that the volume of wastewater will increase with the construction of planned housing units, which may necessitate additional areas for discharges of recycled water. Planned and potential recycled water discharge areas were analyzed in the *Final Environmental Impact Statement for the Tertiary Treatment Plant and Associated Facilities, MCB Camp Pendleton* (EIS) prepared for the USMC in April 2004.
8. The SRTTP treated effluent discharges to the Oceanside Ocean Outfall via the Lemon Grove Pump Station pursuant to National Pollutant Discharge Elimination System (NPDES) Permit No. CA0109347, Order No. R9-2003-0155. The USMC currently discharges secondary treated wastewater from Sewage Treatment Plant (STP) No. 1 (Headquarters Plant) and No. 2 (San Luis Rey Plant) to the Marine Memorial Golf Course pursuant to Order No. 2000-45. The use of the Oceanside Ocean Outfall is

¹ Generally from the Chappo Subbasin and Upper Ysidora Subbasins of the Santa Margarita River watershed

the fail-safe discharge point in the event the capacity of the Lemon Grove Ponds is exceeded.

9. The USMC administers a Source Control Program ("Program", see Part D of Order No. R9-2003-0155) to identify, characterize and eliminate sources of pollutants entering sewage treatment plants. The Program includes industrial waste surveys, a contract for inspection and maintenance of oil and water separators, a Base order informing and instructing food and hospitality services on proper practices and public education for Base housing residents. The Program allows the USMC to limit oil and grease concentrations in effluent² despite being unable to reliably meet the influent concentration limit of 25 mg/L for oil and grease established by Order No. R9-2003-0155.
10. The Regional Board, under authority of Water Code section 13244 , adopted the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan) on September 8, 1994. The State Water Resources Control Board (SWRCB) subsequently approved the Basin Plan on December 13, 1994. Subsequent amendments to the Basin Plan have also been adopted by the Regional Board and approved by the SWRCB. The Basin Plan contains beneficial uses and water quality objectives, and a policy for regulating the discharge of reclaimed (or recycled) water to comply with water quality objectives. The requirements of this Order are consistent with those Basin Plan requirements for discharges of reclaimed water.
11. The Basin Plan establishes the following beneficial uses of groundwater for the affected Hydrologic Areas (HA) and Subareas (HSA) of the Santa Margarita Hydrologic Unit (HU) and the San Luis Rey HU:

TABLE 2

Hydrologic Area (Hydrologic Subarea)	HSA	Designated Beneficial Uses
Ysidora HA (Lower Ysidora HSA ^a)	902.11	Municipal (MUN), Agricultural (AGR), Industrial Service (IND) and industrial process (PROC)
Lower San Luis Rey HU (Mission HSA ^b)	903.11	Municipal (MUN), Agricultural (AGR) and Industrial Service (IND)

^a = Location of the Front Gate discharge area.

^b = Location of the Golf Course, Horse Pasture, and Mainside Parade Grounds discharge areas.

12. The Basin Plan establishes the following water quality objectives for the Ysidora Hydrologic Area of the Santa Margarita River watershed and Mission Hydrologic Subarea of the San Luis Rey River watershed:

² The USMC reported two detections greater than 5 mg/L of oil and grease in monthly samples collected since September 2003.

TABLE 3

Constituent	Concentration not to be exceeded more than 10% of the time in one year		
	Units	Mission HSA (903.11) ^a	Ysidora HA (902.10) ^a
Total Dissolved Solids	mg/L	1500 ^{cd}	750 ^c
Chlorine	mg/L	500 ^{cd}	300 ^c
Sulfate	mg/L	500 ^{cd}	300 ^c
Percent Sodium	%	60	60
Nitrate	mg/L	45 ^{cd}	10 ^c
Iron	mg/L	0.85 ^{cd}	0.3 ^c
Manganese	mg/L	0.15 ^{cd}	0.05 ^c
Methylene Blue Active Substances	mg/L	0.5 ^{cd}	0.5
Boron	mg/L	0.75 ^{cd}	0.75 ^c
Odor	None		
Turbidity	NTU	5	5
Color	Units	15 ^{cd}	15
Flouride	mg/L	1.0 ^{cd}	1.0

From the Basin Plan notes:

^a The water quality objectives do not apply westerly of the easterly boundary of Interstate Highway 5. The objectives for the remainder of the Hydrologic Area (Subarea) are shown.

^c The recommended plan would allow for measurable degradation of ground water in this basin to permit continued agricultural land use. Point sources, however, would be controlled to achieve effluent quality corresponding to the tabulated number.

^d A portion of the Upper Mission Basin is being considered as an underground potable water storage reservoir for treated imported water. The area is located north of Highway 76 and the boundary of hydrologic subareas 3.11 and 3.12. If this program is adopted, local objectives approaching the quality of the imported water would be set and rigorously pursued.

13. A discharge in compliance with this Order is consistent with standards, policies, and regulations established in CCR, Title 22, Division 4, Chapter 3, *Reclamation Criteria*, and Water Code Division 7, Chapter 7, *Water Recycling Law*. The discharge of reclaimed water under this Order conforms to State Water Resources Control Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining the High Quality of Waters in California*. The USMC submitted rules and regulations for recycled water use in the ROWD (see *Engineering Report for the Production, Distribution and Use of Recycled/Reused Water*) that are consistent with the State regulations.
14. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
 - a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;
 - b. Other waste discharges;

- c. The need to prevent nuisance;
- d. Past, present, and probable future beneficial uses of the hydrologic subunits under consideration;
- e. Environmental characteristics of the hydrologic subunits under consideration;
- f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
- g. Economic considerations;
- h. The need for additional housing within the region; and
- i. Need to develop and use recycled water.

15. As specified by Water Code section 13523.2, this Order includes the following:

- a. Waste discharge requirements adopted pursuant to Water Code, Article 4, section 13260;
- b. Requirement that the discharger comply with the uniform statewide criteria established by the State Department of Health Services pursuant to Water Code section 13521 and other applicable permit conditions for the use of recycled water;
- c. Requirement that the discharger establish and enforce rules and regulations for recycled water users in accordance with statewide reclamation criteria;
- d. Requirement that the discharger submit quarterly recycled water use summary reports;
- e. Requirement that the discharger conduct periodic inspections of the recycled water use sites; and
- f. Other requirements determined to be appropriate by this Regional Board.

16. The Regional Board has notified the United States Marine Corps, Camp Pendleton and all known interested parties of the intent to prescribe a master reclamation permit for the proposed discharge whereby the USMC is the recycled water agency.

17. The USMC, as a federal facility subject to the National Environmental Policy Act (NEPA) prepared the EIS. The EIS satisfies the California Environmental Quality Act (CEQA) requirements and thereby serves as the Environmental Impact Report (EIR) in accordance with Title CCR, Title 14, Article 14, section 15221. Public notification of the proposed project was completed pursuant to NEPA, and pursuant to CEQA by notification of the EIS serving as the EIR.

18. The Regional Board in a public meeting on *[insert meeting date]* heard and considered all comments pertaining to its proposed discharge.

IT IS HEREBY ORDERED THAT, United States Marine Corps, Camp Pendleton (hereinafter the discharger), for the Southern Region Tertiary Treatment Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following for the treatment, storage and discharge of recycled wastewater at the "Irrigation Areas" identified in Finding 5 of this Order:

A. PROHIBITIONS

1. Discharges of recycled water, including runoff and spray, to lands which have not been specifically described in the ROWD, and for which valid waste discharge requirements are not in force, are prohibited.
2. Neither the treatment, nor storage, nor disposal of waste shall create a pollution, contamination or nuisance, as defined by Water Code section 13050.
3. Discharges of treated or untreated solid or liquid waste into a navigable water or tributary of a navigable water are prohibited, unless as authorized by an NPDES permit issued by this Regional Board.
4. Impoundment of disinfected tertiary recycled water within 100 feet of any domestic water supply well is prohibited.
5. Irrigation with disinfected tertiary recycled water within 50 feet of any domestic supply well is prohibited.

B. DISCHARGE SPECIFICATIONS

1. The 30-day average daily dry weather flow to the SRTTP shall not exceed the 5.0 mgd design capacity of the facility.
2. Recycled water effluent shall be treated to the level of disinfected tertiary recycled water in compliance with CCR, Title 22, Division 4, Chapter 3, section 60301.230. Disinfection will provide a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.

The median concentration of total coliform bacteria measured in the disinfected effluent will not exceed a most probable number (MPN) of 2.2 total coliform bacteria per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 total coliform bacteria per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

3. Turbidity of the disinfected tertiary recycled water shall not exceed a daily average value of 2 NTU (nephelometric turbidity units) based on the average of turbidity measurement at 4-hour intervals over a 24-hour period. Turbidity shall not exceed 5 NTU for more than 15 minutes and shall not exceed 10 NTU at any time.
4. The recycled water discharged from SRTTP to the Irrigation Areas shall not contain constituents in excess of the following effluent limitations:

TABLE 4

Constituent	Units	30-Day Average¹	Daily Maximum²
Biochemical Oxygen Demand (BOD at 20° C)	mg/l	30	45
Total Suspended Solids	mg/l	30	45
pH	pH Units	Within the limits of 6.5 to 8.5 at all times	
Total Dissolved Solids	mg/l	NA	1,100
Chloride	mg/l	NA	325
Sulfate	mg/l	NA	325
Fluoride	mg/l	NA	0.7
Iron	mg/l	NA	0.3
Manganese	mg/l	NA	0.05
Boron	mg/l	NA	0.6

Table 4 notes:

- ¹ The 30-day average effluent limitation shall apply to the arithmetic mean of the results all samples collected during any 30 consecutive calendar day period.
- ² The daily maximum effluent limitation shall apply to the results of a single composite or grab sample.

5. Collected screenings, sludge, other solids removed from liquid wastes, and filter backwash shall be disposed in a manner described in the Findings of this Order or as approved by the Regional Board. Sewage sludge treatment and disposal shall comply with all pertinent paragraphs of Part 503, Subchapter O, Chapter I of Title 40 Code of Federal Regulations under the USEPA's jurisdiction.

C. RECYCLED WATER PURVEYANCE REQUIREMENTS

1. The USMC must do the following for all reuse sites:
 - a. Enforce rules and regulations for recycled water use established in the ROWD (see *Engineering Report for the Production, Distribution and Use of Recycled/Reused Water*);
 - b. Within 30 days of adoption of this Order, develop and submit a program to conduct compliance inspections of recycled water reuse sites to the Regional Board, DPH and San Diego County Department of Environmental Health;
 - c. Inspect recycled water reuse sites in accordance with the program submitted for requirement C.2.b. of this Order;
 - d. Provide quarterly summary reports of recycled water use to the Regional Board;
 - e. Maintain a current list of all on-site recycled water supervisors.

2. The USMC, within 30 days of adoption of this Order and prior to providing recycled water to a new use site, shall certify that the project conforms with what is described by the rules and regulations established in Requirement C.1.a of this order. A certification report shall document that all criteria described in rules and regulations have been submitted to and approved by the State Department of Public Health and County Department of Health Services.
3. The USMC, within 30 days of adoption of this Order, shall certify that the SRTTP can comply with Discharge Specifications in section B. The certification report shall document compliance with each specification individually.

D. FACILITY DESIGN AND OPERATION SPECIFICATIONS

1. PROPER OPERATION

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance of all treatment, monitoring and conveyance systems, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

2. OPERATION MANUAL

A copy of the facility operations manual shall be maintained at the Recycled Water Agency's facility and shall be available to operation personnel and Regional Board staff at all times. The following portions of the operations manual shall be posted at the treatment plant as a quick reference for treatment plant operators:

- a. Alarm set points for secondary turbidity, tertiary turbidity, and chlorine residual once established in the Reliability Plan described in section D.3,
- b. Levels at which flow will be diverted for secondary turbidity, tertiary turbidity, and chlorine residual once established in the Reliability Plan described in section D.3,
- c. When to divert flow for high daily and weekly median total coliform,
- d. When the authorities (DHS, DEH, and Regional Board) will be notified of a diversion,
- e. Names and numbers of those authorities to be notified in case of a diversion, and
- f. Frequency of calibration for turbidimeters and chlorine residual analyzers.

3. ENGINEERING REPORT

Prior to any changes in the treatment facilities, the discharger shall prepare an engineering report conforming to section 60323, Article 7 of the CCR, Title 22, Division

4, Chapter 3. The engineering report shall be submitted to the State Department of Public Health - Office of Drinking Water, County Department of Health Services, and the Regional Board for review and response.

4. OPERATORS' CERTIFICATION

The discharger's wastewater treatment facilities shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to, CCR Title 23, Division 3, Chapter 26.

5. FLOOD PROTECTION

All waste treatment, containment and disposal facilities, with the exception of landscape irrigation areas, shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.

6. RUNOFF PROTECTION

All waste treatment, containment and disposal facilities with the exception of landscape irrigation areas, shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year frequency 24-hour storm.

7. CONTROL OF DISCHARGES

The discharger shall design, construct, operate, and maintain storage facilities and irrigation areas to prevent spray, surfacing or runoff of wastewater on property not owned or controlled by the discharger by implementing best management measures and practices.

8. CROSS-CONNECTIONS

The potable water supply shall not be used to supplement the reclaimed water supply except through an approved air gap. In other areas where the potable water supply is piped to premises where sewage is pumped, treated or reclaimed (e.g., sewage treatment plants or pumping stations, golf course, etc.) the potable water supply shall be protected at the property line in accordance with the State Department of Public Health's Regulations Relating to Cross-Connections.

9. CAPACITY NOTIFICATION

Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a

finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board.

10. MONITORING AND REPORTING

The discharger shall comply with attached Monitoring and Reporting Program No. R9-2008-0089, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. R9-2008-0089.

E. STANDARD PROVISIONS

1. DUTY TO COMPLY

The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

2. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at any location.

3. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Pursuant to section 5411.5 of the California Health and Safety Code, any sewage overflow or spill shall be immediately reported to the Director of Environmental Health. In addition, any such information shall be provided orally to the Regional Board within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of

noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Regional Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Regional Board within 24 hours:

- a. Any bypass from any portion of the treatment facility,
- b. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances,
- c. Any treatment plant upset which causes the effluent limitations of this Order to be exceeded,
- d. Failure of chlorination equipment or loss of detectable chlorine residual, and
- e. Effluent total coliform MPN greater than 1600/100 ml in more than one sample.

4. PLANT OVERFLOW EVENTS

The Discharger shall report all overflow events that occur at RWCWRF. For purposes of this reporting requirement, an overflow event is defined as a discharge of treated or untreated wastewater at a location onsite not authorized by waste discharge requirements and/or NPDES permit which results from a pump station failure, line break, obstruction, surcharge, or any other operational dysfunction. This reporting requirement applies to all overflow events other than those events subject to regulation under State Board Order No. 2006-0003-DWQ and Regional Board Order No. R9-2007-0005. Overflows of the kind identified under this provision shall be reported to the Regional Board with the monthly monitoring report in which the overflow occurs.

5. PRIOR NOTICE OF BYPASS

If a need for a discharge bypass is known in advance, the discharger shall submit prior notice and, if at all possible, such notice shall be submitted at least 10 days prior to the date of the bypass.

6. CORRECTIVE ACTION

The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

7. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order,

control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

8. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control Plan.

9. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

10. PERMIT REPOSITORY

A copy of this Order shall be maintained at the discharger's facilities and shall be available to operating personnel at all times.

11. RETENTION OF RECORDS

The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be

maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

12. GENERAL REPORTING REQUIREMENT

The discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

13. PERMIT REVISION

This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this Order;
- b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

14. CHANGE IN DISCHARGE

The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

- a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
- b. Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste.)
- c. Change in the disposal area from that described in the findings of this Order.
- d. Increase in flow beyond that specified in this Order.
- e. Other circumstances which result in a material change in character, amount, or location of the waste discharge.
- f. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.

15. CHANGE IN OWNERSHIP

This Order is not transferable to any person except after notice to the Regional Board.

The discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Water Code.

16. INCOMPLETE REPORTS

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

17. REPORT DECLARATION

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

- a. By the Commanding Officer for Marine Corps Base Camp Pendleton;
- b. All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph a. of this provision, or by a duly authorized representative only if:
 - i. The authorization is made in writing by a person described in paragraph a. of this provision;
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - iii. The written authorization is submitted to the Regional Board.
- c. Any person signing a document under this provision shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

18. REGIONAL BOARD ADDRESS

The discharger shall submit reports required under this Order, or other information required by the Regional Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92124

F. NOTIFICATIONS

1. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

2. U.S. EPA REVIEW

These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to section 402 of the Clean Water Act.

3. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

4. CIVIL MONETARY REMEDIES

The Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a cleanup and abatement order is issued, up to 15,000 dollars per day of violation or some combination thereof.

5. PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS

The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil

liability of up to \$5,000 for each day in which the violation occurs.

6. ORDER BECOMES EFFECTIVE

This Order shall become effective the date of its adoption.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region on [insert adoption date].

JOHN H. ROBERTUS
Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**MONITORING AND REPORTING PROGRAM
FOR ORDER NO. R9-2008-0089
FOR THE
SOUTHERN REGION TERTIARY TREATMENT PLANT
UNITED STATES MARINE CORPS, CAMP PENDLETON
SAN DIEGO COUNTY**

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Monitoring and Reporting Program (MRP) and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Regional Board.
2. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 5 percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring must be conducted according to United States Environmental Protection Agency (USEPA) test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this MRP.
4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.
5. Monitoring results must be reported on discharge monitoring report forms approved by the Regional Board.
6. If the United States Marine Corps (USMC or Discharger) monitors any pollutants more frequently than required by this MRP, using test procedures approved under 40 CFR, Part 136, or as specified in this MRP, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this MRP, and

records of all data used to complete the application for the Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

8. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or method used; and
 - f. The results of such analyses.
9. All monitoring instruments and devices which are used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. Monitoring or sampling shall be conducted at time intervals that are approximately equal to the prescribed monitoring or sampling frequency (e.g., sampling conducted approximately three months apart for a quarterly frequency).
11. The Discharger shall identify missing or non-valid monitoring or sampling results in submitted reports accompanied by an explanation of their root cause and the steps the Discharger has or will take to prevent future instances. Missing or non-valid results may be considered violations of the Order that could result in enforcement action depending on the frequency of such instances and efforts by the Discharger to prevent such failures.
12. The Discharger shall report all instances of noncompliance not reported under Provision E.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Provision E.5.
13. The monitoring reports shall be signed by an authorized person as required by Reporting and Record Keeping Requirements, F.8.
14. A composite sample is defined as a combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.
15. A grab sample is an individual sample of at least 100 milliliters collected at a randomly

selected time over a period not exceeding 15 minutes.

16. Sampling and analysis shall, at a minimum, shall be conducted in accordance with Article 6 of California Code of Regulations, Title 22, Division 4, Chapter 3 (Reclamation Criteria).

B. INFLUENT MONITORING

The Discharger shall calculate the flow rate of raw wastewater influent to the Southern Region Tertiary Treatment Plant (SRTTP) based on continuously flow measurement at other locations in the SRTTP. Cumulative 24-hour flow rates representing each calendar day in units of million gallons per day shall be reported monthly. The mass balance calculations used to determine the influent flow rate must be provided.

C. EFFLUENT MONITORING

1. The SRTTP effluent shall be monitored just past the chlorine contact basin.
2. The discharger is responsible for monitoring and reporting in accordance with the following schedule:

TABLE 1

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow Rate	MGD	Continuous	Continuous	Monthly
Total Chlorine Residual (minimum value)	mg/l	Continuous	Continuous	Monthly
Chlorine Contact Time (CT)	mg-min/l	Calculated	Continuous	Monthly
Total Coliform Bacteria	MPN/100 ml	Grab	Daily	Monthly
Turbidity	NTU	Continuous	Continuous	Monthly
Biochemical Oxygen Demand (BOD ₅ @20°C)	mg/l	Composite	Weekly	Monthly
Total Suspended Solids	mg/l	Composite	Weekly	Monthly
pH	pH Units	Grab	Weekly	Monthly
Total Dissolved Solids	mg/l	Composite	Monthly	Monthly
Chloride	mg/l	Composite	Monthly	Monthly
Sulfate	mg/l	Composite	Monthly	Monthly
Fluoride	mg/l	Composite	Monthly	Monthly
Iron	mg/l	Composite	Monthly	Monthly
Manganese	mg/l	Composite	Monthly	Monthly
Boron	mg/l	Composite	Monthly	Monthly
Aluminum	mg/l	Composite	Annually	Annually
Arsenic	mg/l	Composite	Annually	Annually
Antimony	mg/l	Composite	Annually	Annually
Barium	mg/l	Composite	Annually	Annually
Beryllium	mg/l	Composite	Annually	Annually
Cadmium	mg/l	Composite	Annually	Annually
Chromium	mg/l	Composite	Annually	Annually
Copper	mg/l	Composite	Annually	Annually
Cyanide	mg/l	Composite	Annually	Annually

Lead	mg/l	Composite	Annually	Annually
Mercury	mg/l	Composite	Annually	Annually
Nickel	mg/l	Composite	Annually	Annually
Nitrate (as NO ₃ ⁻)	mg/l	Composite	Annually	Annually
Nitrite (as N)	mg/l	Composite	Annually	Annually
Selenium	mg/l	Composite	Annually	Annually
Silver	mg/l	Composite	Annually	Annually
Thallium	mg/l	Composite	Annually	Annually
Asbestos	Million fibers per liter	Composite	Annually	Annually
Benzene	mg/l	Grab	Annually	Annually
Carbon Tetrachloride	mg/l	Grab	Annually	Annually
1,2-Dichlorobenzene	mg/l	Grab	Annually	Annually
1,4-Dichlorobenzene	mg/l	Grab	Annually	Annually
1,1-Dichloroethane	mg/l	Grab	Annually	Annually
1,2-Dichloroethane	mg/l	Grab	Annually	Annually
1,1-Dichloroethylene	mg/l	Grab	Annually	Annually
cis-1,2-Dichloroethylene	mg/l	Grab	Annually	Annually
trans-1,2-Dichloroethylene	mg/l	Grab	Annually	Annually
Dichloromethane	mg/l	Grab	Annually	Annually
1,2-Dichloropropane	mg/l	Grab	Annually	Annually
1,3-Dichloropropene	mg/l	Grab	Annually	Annually
Ethylbenzene	mg/l	Grab	Annually	Annually
Methyl- <i>tert</i> -butyl ether	mg/l	Grab	Annually	Annually
Monochlorobenzene	mg/l	Grab	Annually	Annually
Styrene	mg/l	Grab	Annually	Annually
1,1,2,2-Tetrachloroethane	mg/l	Grab	Annually	Annually
Tetrachloroethylene	mg/l	Grab	Annually	Annually
Toluene	mg/l	Grab	Annually	Annually
1,2,4-Trichlorobenzene	mg/l	Grab	Annually	Annually
1,1,1-Trichloroethane	mg/l	Grab	Annually	Annually
1,1,2-Trichloroethane	mg/l	Grab	Annually	Annually
Trichloroethylene	mg/l	Grab	Annually	Annually
Trichlorofluoromethane	mg/l	Grab	Annually	Annually
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/l	Grab	Annually	Annually
Vinyl Chloride	mg/l	Grab	Annually	Annually
Xylenes	mg/l	Grab	Annually	Annually
Alachlor	mg/l	Grab	Annually	Annually
Atrazine	mg/l	Grab	Annually	Annually
Bentazon	mg/l	Grab	Annually	Annually
Benzo(a)pyrene	mg/l	Grab	Annually	Annually
Carbofuran	mg/l	Grab	Annually	Annually
Chlordane	mg/l	Grab	Annually	Annually
2,4-D	mg/l	Grab	Annually	Annually
Dalapon	mg/l	Grab	Annually	Annually
Dibromochloropropane	mg/l	Grab	Annually	Annually
Di(2-ethylhexyl)adipate	mg/l	Grab	Annually	Annually
Di(2-ethylhexyl)phthalate	mg/l	Grab	Annually	Annually
Dinoseb	mg/l	Grab	Annually	Annually
Diquat	mg/l	Grab	Annually	Annually
Endothall	mg/l	Grab	Annually	Annually
Endrin	mg/l	Grab	Annually	Annually
Ethylene Dibromide	mg/l	Grab	Annually	Annually

Glyphosate	mg/l	Grab	Annually	Annually
Heptachlor	mg/l	Grab	Annually	Annually
Heptachlor Epoxide	mg/l	Grab	Annually	Annually
Hexachlorobenzene	mg/l	Grab	Annually	Annually
Hexachlorocyclopentadiene	mg/l	Grab	Annually	Annually
Lindane	mg/l	Grab	Annually	Annually
Methoxychlor	mg/l	Grab	Annually	Annually
Molinate	mg/l	Grab	Annually	Annually
Oxamyl	mg/l	Grab	Annually	Annually
Pentachlorophenol	mg/l	Grab	Annually	Annually
Picloram	mg/l	Grab	Annually	Annually
Polychlorinated Biphenyls	mg/l	Grab	Annually	Annually
Simazine	mg/l	Grab	Annually	Annually
Thiobencarb	mg/l	Grab	Annually	Annually
Toxaphene	mg/l	Grab	Annually	Annually
2,3,7,8-TCDD (Dioxin)	mg/l	Grab	Annually	Annually
2,3,5-TP (Silvex)	mg/l	Grab	Annually	Annually

D. RECYCLED WATER USE SUMMARY REPORTING

The Discharger shall submit a quarterly recycled water use summary report containing the following:

1. Total number of reclaimed water use sites;
2. The locations of reclaimed water use sites including the names of the underlying hydrologic subareas;
3. Total volume of reclaimed water supplied to each use site for each month of the reporting period;
4. Total volume of reclaimed water supplied to all recycled water users for each month of the reporting period;
5. Site supervisor name and contact information for each use site;
6. Number of inspections conducted for each use site;
7. Number of violations for each use site including description of the noncompliance and its cause, including the period of noncompliance, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

E. REPORTING SCHEDULE

Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

Reporting Frequency	Report Period	Report Due
Monthly	January, February, March, April, May, June, July, August, September, October, November, December	By the 30 th day of the following month (or 28 th for February)

Quarterly	January – March April – June July – September October – December	April 30 July 30 October 30 January 30
Semiannually	January – June July – December	August 1 February 1
Annually	January – December	January 30

Monitoring reports shall be submitted to:

California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Ct, Suite 100
San Diego, CA 92123
Attention: Northern San Diego County Ground Water Unit

Ordered by _____
JOHN H. ROBERTUS
Executive Officer